

PAT-NO: JP361083630A
DOCUMENT-IDENTIFIER: JP 61083630 A
TITLE: PRODUCTION OF GOETHITE BY TWO-STAGE AGING
PUBN-DATE: April 28, 1986

INVENTOR-INFORMATION:
NAME
KAWAKAMI, KATSUHIKO
ICHIOKA, TAKAO

ASSIGNEE-INFORMATION:
NAME DAINIPPON INK & CHEM INC
COUNTRY N/A

APPL-NO: JP59202997

APPL-DATE: September 29, 1984

INT-CL (IPC): C01G049/00, H01F001/11

US-CL-CURRENT: 423/632

ABSTRACT:

PURPOSE: The hydrolysis of a ferric salt with alkali is effected in 2-steps, as aging is effected, to give goethite of desired particle sizes with high needle shape, narrow particle size distribution and high dispersibility.

CONSTITUTION: A ferric salt other than ferric sulfate such as ferric nitrate nonahydrate is combined with an alkali such as sodium hydroxide at a molar ratio OH/Fe of $0.5 \sim 2.9$ to form a slurry of partially hydrolyzate of the ferric salt. Then, the first-step aging is effected in the presence or absence of a zinc salt such as zinc chloride in amount of $1 \sim 10 \text{ mol\%}$ based on the

ferric salt for hours selected from 1 to 72 hours to give goethite particles of $0.10 \sim 0.20$ micrometer long axis and $6 \sim 12$ average axis ratio. The alkali is further added so that the OH/Fe molar ratio becomes more than 3.5 and, when the first step is conducted in the absence of a zinc salt, the above-stated amount of a zinc salt is added, to effect the second aging at $50 \sim 200^\circ\text{C}$ and a pH of 13.0 (at 20°C).

COPYRIGHT: (C)1986,JPO&Japio